

**FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION**

STRATEGIC MONITORING PLAN FIELD SHEET

January 2022

Meter Passed End

of Day CCV

☒ Yes☐ No

WIN Station Name: Big Lake @ center of lake

Date: 5/24/2022

WIN/Field ID: G2CE0208

WBID: 2953B

ENR: -

Latitude: 28.86895

County: VOLUSIA

Org ID: 21FLCEN

Longitude: -81.21304

Receiving Body of Water: -

RQ- 2022-05-23-21

Sampling Team Members		WQ Measurements	Sample Collection	Documentation	Preservation	Preservation Check
☒	Leif Boman		x		x	x
☒	Victoria Schwartz	x		x		
☐						
☐						

Sampling Equipment	
☒ Sample Container	☐ Carboy
☐ Dipper	☐ Van Dorn
☒ Syringe	☐ Pole
Depth measured with: Secchi	
Secchi Equipment ID: Knothead	
Collection Method	
☐ Wading	☐ Canoe/Kayak
☐ From Shore	☐ Electric Motor
☐ Other	☒ Gasoline Motor

Water Level: ☒ Normal ☐ Low ☐ High ☐ Dry ☐ Pooled ☐ Flooded						Meter ID# CRAW DADDY					
Photos: YES		Flow: NA		Tide:		Tide Times: High: Low:					
Biological Samples Collected: ☐ None ☐ HA ☐ SCI ☐ RPS ☐ Algae ID ☐ LVS ☒ LVI Other:											
SBIO ID Numbers: SBIO 84448 MACROPHYTE 12178						LIMS 2329959					
Notes: SUNNY No photos - lost due to issues with new tablet (Samsung) testing											

Duplicate Sample

Time Zone: EST	Time:	Field ID: N/A	(WIN ID_DUP)
WIN DMT Activity ID:			

Blank

Time Zone:	Time:	Field ID:	(Blank Type_DDMMYYYY)
DI Source:	Location:		
DI Type:	Equipment ID:		
DI Container (Name/ID):		DI Container Type:	

LIMS EVENT ID: CEN-DIST-2022-05-25-02

WIN Import ID: 33937

Enter Field Parameters, Verify Station ID In LIMS DMT: KWM 6/21/22

QC Station ID, Field Parameters In LIMS DMT: EB 6/24/22

(Initials/Date)

(Initials/Date)

Scan/Save Field Sheets KWM 7/1/22

(Initials/Date)

Migrate Data to WIN: KWM 7/1/22

(Initials/Date)

Verify Data In WIN:

(Initials/Date)



RQ-2022-05-23-21
Customer: CEN-DIST
Project ID: STRATEGIC MONITORING PLAN

Collected By: Leif Boman, Victoria Schwartz
Field Report Prepared By: Leif Boman
Sampling Agency: FDEP

Place Label Here WIN ID/Field ID: G2CE0208 Location: Big Lake @ center of lake						Comments:				
Matrix: Fresh						(Check one) ☒ GRAB ☐ COMPOSITE				
Date	Time	DO (mg/L)	DO (%SAT)	Temp. (C°)	pH	Sample Depth (m)	Secchi Disk (m)	Total Depth (m)	Sp COND (µmhos/cm)	Salinity (PPT _h)
5/24/2022	1234 EST	7.87	103.5	29.6	7.14	0.3	1.5 ☐ VOB (S)	4.8	222.8	0.1
	1241	3.92	49.1	27	6.65	2.0	Central Lab please use top row for login purposes		224.3	0.1
	1243 EST	0.34	3.9	21.2	6.24	4.3			262	0.12
Parameter Suite		Parameter Methods				Preservation		pH Check	# Bottles sent to Lab	Bottle Group
Preserved Nutrients (P-500ML)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-TOC / W-S-A-TP				☒ Ice ☒ H2SO4*		☐ <2	1	A
		Lot #	SA130873		Exp:	11/17/22				
Metals (P-500ML)		☒ W-ICPMS ☒ W-ICP ☒ W-HARD				☒ Ice ☐ HNO3*		☒ <2	1	A
		Lot #	NA1286110		Exp:	11/16/22				
Filtered Nutrients (P125ML)		☒ W-PO4-F ☒ Field Filtered 0.45 µm Filter				☐ Ice			1	A
		Filter Lot #	17413308			Syringe Lot #	1335260			
BOD (BP-1L)		☐ OV-BODUNIN				☐ Ice				
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☐ Ice			1	A
Physical/Aggregate (Fresh) (P-1L)		☒ Alkalinity / W-F / W-TSS / TURBIDITY / W-CL-IC / W-COLOR / W-SO4-IC / W-TDS				☐ Ice			1	A
Physical/Aggregate (Marine) (P-1L)		☐ Alkalinity / W-F / W-TSS / TURBIDITY				☐ Ice				
Macroinvertebrates (PJ-2L)		☐ MI-FW-QLDC				☐ Formalin				
Periphyton (PT-50ML)		☐ ALGAE-ID				☐ Ice				
Microbiology (Contract Lab Bottle)		☐ E Coli ☐ F Coli ☐ Enterococci ☐ Contract Lab				☐ Ice				
Molecular (QPCR-P-500ML)		☐ PCR-HF183 ☐ PCR-BacR ☐ PCR-DG3 ☐ PCR-GULL2 ☐ PCR-GFD ☐				☐ Ice				
Tracers (BG-500ML)		☐ W-E8321-DI ☐ W-E8321-MS				☐ Ice		MCAA Exp.		
Pesticides (BG-500ML) (BG-1L)		☒ W-E8321-DI	☒ WE8321-MS	☒ W-PSNP-TQ		W-CT-CL-R	☒ Ice	MCAA Lot#	4	A
		W-PCL-TQ-R	W-CARB-AA (5 ml of MCAA** Buffer Solution)		☒	W-TR-SQ-R				
		W-PCB-TQ-R								
Phytoplankton/Periphyton				DTY-QN-C		PKD-QN-C	☐ Ice			
Name: Leif Boman Victoria Schwartz				Signature:					Date: 05/24/2022	

*2.0 ml of Preservative used unless noted otherwise.

**MCAA: Monochloroacetic acid buffer solution

DEP FORM FD 9000-31: LAKE OBSERVATION FIELD SHEET

SAMPLE ID: _____ MACROPHYTE ID: _____ LATITUDE: _____
COUNTY: VALUISIA COUNTY STORET #: _____ LONGITUDE: _____
DATE: 05/24/2022 TIME: _____ SAMPLING AGENCY: FDEP - CEROL
SITE NAME: Big Lake @ center of lake WBID: 2953B
FIELD ID/NAME: G2050208 LAKE SIZE: _____ RQ: 2022-05-23-21

WATERSHED / LAKESIDE FEATURES

PREDOMINANT LAND-USE IN WATERSHED (specify relative percent in each category – from GIS) :				LANDSCAPE DEVELOPMENT INTENSITY (100 m buffer)			
Forest/Natural	Silviculture	Field/Pasture	Agricultural	Residential	Commercial	Industrial	Other (Specify)
☐	☐	☐	☐	☐	☐	☐	☐
Local Watershed Erosion (select one) : ☒ None ☐ Slight ☐ Moderate ☐ Heavy							Artificially Impounded
Local Watershed NPS Pollution : ☒ No evidence ☐ Slight ☐ Moderate ☐ Heavy							☐ Yes ☒ No
STORMWATER INPUTS		Stormwater enters system via sheet flow over non-cultivated and/or natural vegetation		Some direct stormwater inputs (ditches, pipes, cultivated vegetation < 10%) but good BMPs in place		Moderate direct inputs of stormwater (ditches, pipes, cultivated vegetation 11%-50%) but few BMPs in place	
<u>19</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6	
LAKESIDE ALTERATIONS		Very few man-made structures, roads, or other disturbance adjacent to lake (<10% lakeside affected)		Moderate disturbance visible - structures, roads or other (10%-49% lakeside affected)		Many structures, roads or other human disturbance visible (50%-70% lakeside affected)	
<u>17</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6	
BUFFER ZONE		Expected native vegetation between uplands and littoral zone, greater than 90% of shore with >18 m buffer		89%-51% of shoreline with >18m buffer or >75% with 10m to 18m buffer		50%-30% of shoreline with >18m buffer or 50%-74% with 10m to 18m buffer	
<u>18</u>		20 19 18 17 16		15 14 13 12 11		10 9 8 7 6	
						5 4 3 2 1	

WATER / SUBSTRATE / BIOLOGICAL: SAMPLES AND OBSERVATIONS

Water: Nutrient Sample Taken? ☒ Yes ☐ No Preserved? ☒ Yes ☐ No pH<2 ☐ No Color Sample Taken? ☒ Yes ☐ No Lot # _____ Exp. Date: _____ Alkalinity Sample Taken? ☒ Yes ☐ No Water Level ☐ Low ☒ Normal ☐ High								Water Odors: ☒ Normal ☐ Sewage ☐ Petroleum ☐ Other _____															
Meter Readings: Top: <u>0.3</u> <u>29.6</u> <u>7.14</u> <u>7.87</u> <u>103.5</u> <u>222.8</u> <u>0.1</u> Mid-Depth: <u>2.0</u> <u>27.0</u> <u>6.65</u> <u>3.92</u> <u>49.1</u> <u>224.3</u> <u>0.1</u> Bottom: <u>4.3</u> <u>21.2</u> <u>6.24</u> <u>0.34</u> <u>3.9</u> <u>262</u> <u>0.12</u>								Water Surface Oils: ☒ None ☐ Sheen/Slick ☐ Glob ☐ Other _____															
Meter ID: <u>CRAW DADOT</u>								Clarity: ☒ Clear ☐ Opaque ☐ Turbid ☐ Slightly Turbid Color: ☐ Clear ☒ Tannic ☐ Green															
Sediment Type: (may check more than one) ☐ Sandy ☐ Organic fibrous (peaty, CPOM) ☐ Vegetated ☐ Sand/Silt ☐ Organic smooth (muck) ☐ Other (Specify): _____								SECCHI (M) <u>1.5</u> Total Station Depth (M) <u>4.8</u> VOB ☐															
Sediment Odors: ☐ Normal ☐ Other (Specify): _____ ☐ Anaerobic								Biological Communities: LVI Conducted? ☒ Yes ☐ No Phytoplankton Sample Taken? ☐ Yes ☒ No Sample Preserved? ☐ Yes ☐ No Lot #: _____ Exp Date: _____ Algal Bloom/Algal ID Sample Taken? Yes ☒ No ☐ Active Vegetation Mgmt? ☒ Yes ☐ No ☐ Don't Know								Abundance: Absent Rare Common Abundant Periphyton ☐ ☒ ☐ ☐ Nuisance Plants ☐ ☐ ☐ ☒ Submersed Plants ☐ ☐ ☐ ☒ Exotic Apple Snails ☐ ☒ ☐ ☐							
Additional Notes:																							
Weather Conditions: <u>Sunny.</u>																							
SAMPLING TEAM: <u>Leif Boman, Victoria Schwartz</u>								SIGNATURE: <u>Leif Boman</u>				DATE: <u>05/24/2022</u>											

DEP FORM FD 9000-27 LAKE VEGETATION INDEX FIELD SHEET

Waterbody: <u>Big Lake</u>		County: <u>Volusia</u>		Date: <u>05/24/2022</u>									
Analyst: <u>Lif Boman, Victoria Schwartz</u>		Signature: <u>[Signature]</u>		STORET: <u>G2CE0208</u>									
Except where noted as "sp." species level identification required. *Genera that may require lab verification* Plants in bold = FLEPPC invasive exotic. It is important to note dominant or co-dominant taxa (by areal extent) for each unit. Use "D" to denote dominant taxon, or "C" for the 2 co-dominant taxa.													
SPECIES		1	4	7	10	Collected? (✓)	SPECIES		1	4	7	10	Collected? (✓)
Acer rubrum							Fuirena scirpoides						
Alternanthera philoxeroides							Gordonia lasianthus						
Amaranthus australis							Habenaria repens						
Andropogon sp.							Hibiscus coccineus						
Azolla filiculoides (A. caroliniana)							Hibiscus grandiflora						
Baccharis sp.							Hydrilla verticillata						
Bacopa caroliniana							Hydrocotyle sp.						
Bacopa monnieri							Hygrophila polysperma						
Bidens alba							Hymenocallis sp.						
Bidens laevis							*Hypericum fasciculatum						
Bidens mitis							*Hypericum hypericoides						
Blechnum serrulatum							*Hypericum myrtifolium						
Boehmeria cylindrica							Ilex cassine						
Brasenia schreberi							Ipomoea aquatica						
Cabomba caroliniana							Ipomoea sagittata						
Canna							Itea virginica						
Centella asiatica							Juncus effusus						
Cephalanthus occidentalis							*Juncus marginatus						
Ceratophyllum demersum							*Juncus megacephalus						
Chara sp.							Juncus repens						
Cladium jamaicense							*Juncus scirpoides						
Colocasia esculenta							Lachnanthes caroliniana						
*Commelina							Leersia hexandra						
Crinum americanum							Landoltia punctata (Spirodela punctata)						
*Cyperus alternifolius (C. involucratus)							Lemna sp.						
Cyperus articulatus							Leucothoe racemosa (Eubotrys racemosa)						
Cyperus haspan							Limnobia spongia						
*Cyperus lecontei							Limnophila sessiliflora						
*Cyperus polystachyos							Liquidambar styraciflua						
*Cyperus odoratus							*Ludwigia arcuata						
*Cyperus surinamensis							*Ludwigia grandiflora						
Cyrtilla racemiflora							*Ludwigia hexapetala						
Decodon verticillatus							*Ludwigia leptocarpa						
Diodia virginiana							Ludwigia (native)						
*Echinochloa crus-galli							*Ludwigia octovalvis						
*Echinochloa muricatum							*Ludwigia peruviana						
Echinochloa walteri							*Ludwigia repens						
Eclipta prostrata (E. alba)							Ludwigia suffruticosa						
Eichhornia crassipes							Luziola fluitans (Hydrochloa carolinensis)						
Eleocharis							Magnolia virginiana						
Eleocharis cellulosa			</										

FORM FD 9000-27: LAKE VEGETATION INDEX FIELD SHEET

Site: <u>Big Lake</u>					Date: <u>10/24/2012</u>						
SPECIES	1	4	7	10	Collected? (✓)	SPECIES	1	4	7	10	Collected? (✓)
Myriophyllum aquaticum						Salix caroliniana					
*Myriophyllum heterophyllum						Salvinia minima					
*Myriophyllum laxum						Sambucus canadensis					
*Myriophyllum pinnatum						Sapium sebiferum					
Myriophyllum spicatum						Saururus cernuus					
*Najas filifolia						Schinus terebinthifolius					
*Najas guadalupensis						*Schoenoplectus californicus					
*Najas minor						*Schoenoplectus pungens					
Nelumbo lutea						*Schoenoplectus tabernaemontani (Scirpus validus)					
Nitella spp.						Scirpus cubensis (Oxycaryon cubense)					
Nuphar sp.						Scirpus cyperinus					
Nymphaea mexicana						*Sesbania					
Nymphaea odorata						Solidago sp.					
Nymphoides aquatica						Sparganium americanum					
Nyssa sylvatica var. biflora						Spartina bakeri					
Orontium aquaticum						Spirodela polyrhiza					
Osmunda cinnamomea						Taxodium sp.					
Osmunda regalis						Thalia geniculata					
Panicum hemitomon						Thelypteris interrupta					
Panicum repens						Thelypteris palustris					
Paspalidium geminatum						Triadenum virginicum					
*Paspalum repens						Typha sp.					
Paspalum urvillei						Urochloa mutica (Brachiaria mutica)					
Peltandra sp.						*Utricularia foliosa					
Persea sp.						*Utricularia gibba (U. biflora)					
Pennisetum purpureum						*Utricularia inflata					
Phragmites australis						*Utricularia purpurea					
Pinus elliotii						*Utricularia radiata					
Pistia stratioides						*Utricularia resupinata					
Pluchea sp.						Vallisneria americana					
*Polygonum glabrum (densiflorum)						Vigna luteola					
Polygonum hirsutum						Vitis sp.					
*Polygonum hydropiperoides						*Websteria confervoides					
*Polygonum punctatum						Wedelia trilobata (Sphagneticola trilobata)					
*Polygonum						Wolffiella spp.					
Pontederia cordata						Woodwardia virginica					
*Potamogeton diversifolius						Xyris sp.					
*Potamogeton illinoensis						Zizania aquatica					
*Potamogeton pusillus						Zizaniopsis milacea					
*Potamogeton pectinatus (Stuckenia pectinatus)											
Proserpinaca pectinata											
*Rhexia											
*Rhynchospora corniculata											
*Rhynchospora inundata											
Rhynchospora nitens											
Ricciocarpus natans											
Sabal palmetto											
Sacciolepis striata											
*Sagittaria filiformis											
*Sagittaria graminea											
*Sagittaria isoetiformis											
Sagittaria lancifolia											
Sagittaria latifolia											

LVI Map for BIG LAKE, WBID 2953B

